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(54) Title: IMMUNOLOGICAL METHOD**(57) Abstract**

A method of identifying an antigen-responsive T cell within a population of T cells, the method comprising the steps of: (1) obtaining a sample containing T cells which have responded to the antigen; (2) determining individually for each of a plurality of specific T cell receptors, or individually for each of a plurality of subsets of T cell receptors, whether expression of a gene encoding a specific T cell receptor, or whether expression of genes encoding a subset of T cell receptors, has increased per specific T cell receptor-positive T cell or per specific T cell receptor-positive T cell subset compared to the expression of said gene or genes in a sample containing T cells which have not responded to the antigen. The method is useful for identifying antigen-responsive T cells which are associated with a disease state such as rheumatoid arthritis.